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Bennett J. Berson

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicants: William F. Dove
Alexandra Shedlovsky

Date: August 7, 2001

Serial No.: 09/114,973

Group Art Unit: 1633

Filed: 07/14/98

Examiner: J. Kerr

Title: METHOD FOR IDENTIFYING MUTANTS AND MOLECULES

Docket No.: 960296.95491

RESPONSE

Commissioner For Patents
Washington DC 20231

Dear Sir:

In response to an Office Action mailed April 11, 2001, please amend the application as follows:

Sub e1

1. (Twice Amended) A method for identifying a segregating single point mutation at a genetic locus that modifies an index phenotype in a non-human index inbred strain, the segregating mutation causing an outlying phenotype relative to the index phenotype, the method comprising the steps of:

outcrossing at least one male animal of a non-human founder inbred strain to at least one female animal of a non-human index inbred strain to obtain F1 progeny, the founder inbred strain carrying random point mutations relative to a wild-type animal of the founder inbred strain, the index inbred strain carrying a congenic dominant allele at a locus known to confer the index phenotype and being genetically distinguishable from the founder inbred strain, wherein at least one of the F1 progeny that carry the dominant allele also carry at least one random mutation;

backcrossing gametes from male F1 progeny to at least one female of the index inbred strain, with or without the index allele, to obtain N2 backcross progeny, wherein at least one of the N2 backcross progeny that carry the dominant allele also exhibit the outlying phenotype; and

verifying that the outlying phenotype is caused by a segregating single point mutation.